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Report

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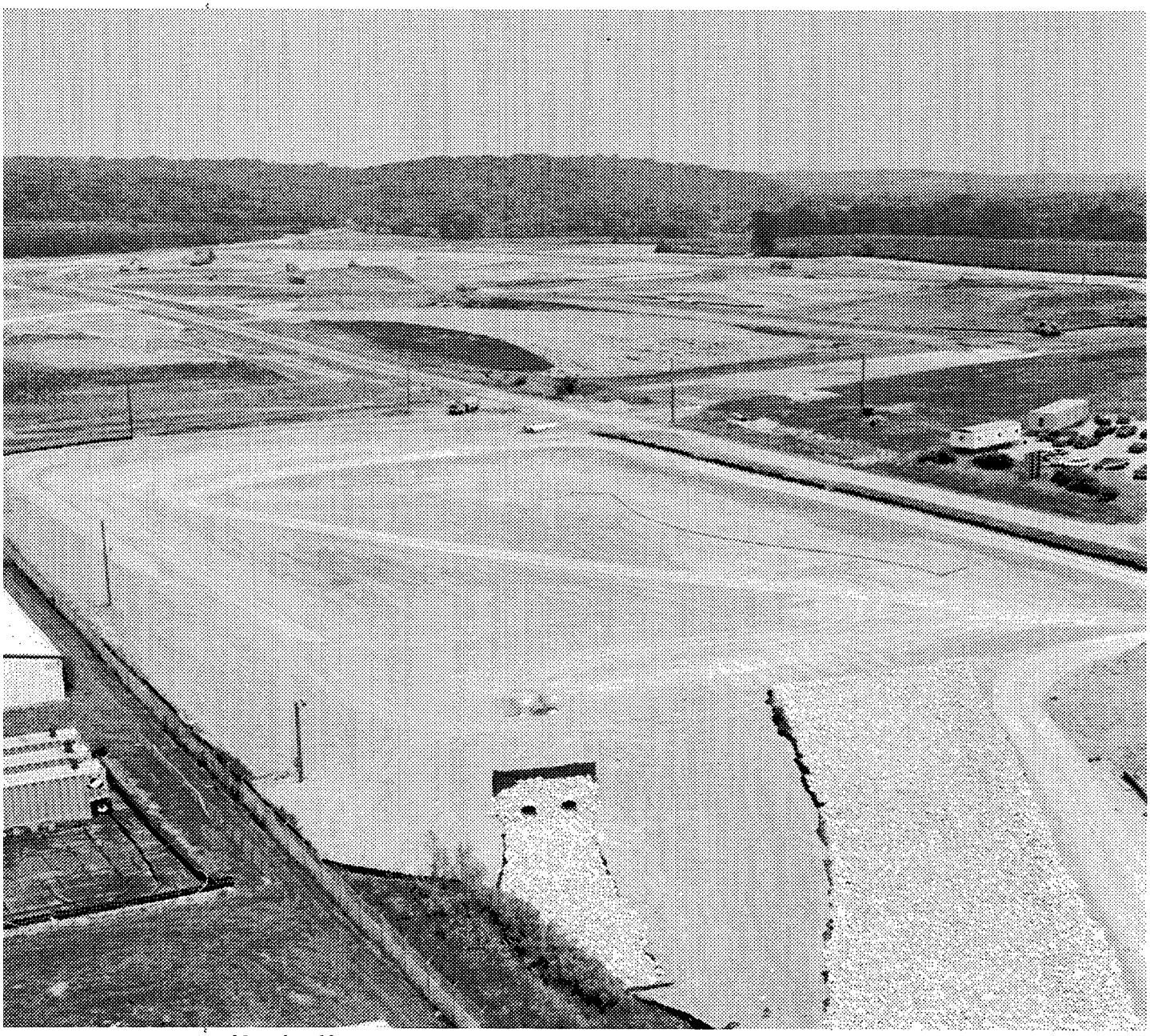
AUGUST 1997



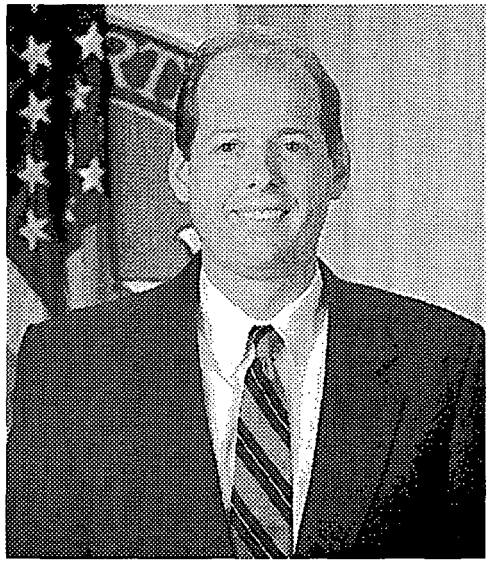
More than 10 percent of the site has been cleaned up and released for future use. This area includes the footprint of the two On-Site Disposal Facility cells (6633-17). Stakeholders can tour the On-Site Disposal Facility construction site during the Sept. 9 "Cleanup Project Briefing" (page 3).

message from

Jack Craig

Soils and Water Projects Workers Make Visible Progress

Significant progress is being made in the Soils and Water Projects. The FEMP is focused on initiating off-site rail shipment of process residues from the six waste pits by March 1999. Approximately 17,500 feet of new rail line are being installed in the pit area and on the northern side of the former production area. The new rail line will support loading, staging and transporting of the unit trains that will carry waste off site. The Okeana railroad trestle is also being upgraded to support heavy loads associated with the unit trains and should be complete by Nov. 1.



DOE has committed to fully restoring contaminated portions of the Great Miami Aquifer to health-protective uranium concentration levels (20 parts per billion of total uranium). Five extraction wells on the southern edge of the off-site portion of the South Groundwater Contamination Plume have returned more than 2.3 billion gallons of contaminated groundwater to the FEMP for treatment and/or discharge. This pumping has helped reduce the concentrations in the off-site portions of the plume from a previous maximum of 300 parts per billion of uranium to less than 200 parts per billion.

Under an innovative strategy that will cut 17 years off the projected 27-year groundwater cleanup process and save millions of dollars, 12 groundwater extraction wells are being installed on and off the southern portion of the FEMP. These extraction wells will be on line by September 1998.

Our aggressive groundwater restoration effort also entails large-scale re-injection of treated groundwater into the aquifer. This technology's scale of application at the FEMP will greatly exceed previous groundwater cleanup efforts undertaken in the United States. Five large-diameter re-injection wells have been installed on FEMP property along Willey Road. This fall, winter and spring 1998, considerable excavation activity will be visible at the southern portion of the site.

We're also working to optimize performance of the Advanced Wastewater Treatment Plant (AWWT). Average monthly discharges to the Great Miami River are less than our regulatory target of 20 parts per billion of total uranium, and mass discharges of uranium to the river have been reduced by more than 70 percent. By the end of April 1998, AWWT groundwater treatment capacity will be expanded by 1,800 gallons per minute, which will make the AWWT the largest ion-exchange-based treatment plant in the world.

More than 10 percent of the site has been cleaned up and released for future use. This area includes the footprint of the two On-Site Disposal Facility (OSDF) cells. Recently, a contract was awarded to complete site preparation in the Inactive Fly Ash Pile/Southfield Area and the Active Fly Ash Pile Area; field activities will begin by late September. These areas represent an active source of contamination to the underlying Great Miami Aquifer. On July 1, the FEMP initiated construction of the first of eight anticipated OSDF cells. DOE, U.S. Environmental Protection Agency (EPA) and Ohio EPA are working to initiate placement of a 3-foot-thick layer of contaminated soil in the OSDF in October to protect the liner from the winter freeze.

Construction of the new haul road is nearly complete. The haul road, which will be used throughout the site cleanup, is scheduled for completion in November. In addition, construction of the new north access road is on schedule for opening at the end of October.

I encourage stakeholders to tour the FEMP for a first-hand view of the considerable progress we are making.

Jack Craig, director
DOE-FEMP Office

Sept. 9 Public Forum Features Tour to Show Fernald On-Site Disposal Facility Progress

DOE and Fluor Daniel Fernald invite stakeholders to attend a new public forum -- the monthly "Cleanup Progress Briefing." The briefing is intended to:

1. update stakeholders regularly on current remediation projects;
2. preview activity scheduled for the near- and long-term, as appropriate; and
3. address specific issues and concerns regarding Fernald cleanup.

On Sept. 9, the "Cleanup Progress Briefing" will begin with a detailed update of all major Fernald cleanup projects, followed by a bus tour of the OSDF site to see construction progress. **The Sept. 9 meeting will begin at 6 p.m. at the Alpha Building, 10967 Hamilton-Cleves Highway, Harrison, Ohio.** Subsequent briefings will be held at 6 p.m. on the second Tuesday of each month and will feature topic(s) of stakeholders' choice.

On-Site Rail Improvements Scheduled for Completion in December

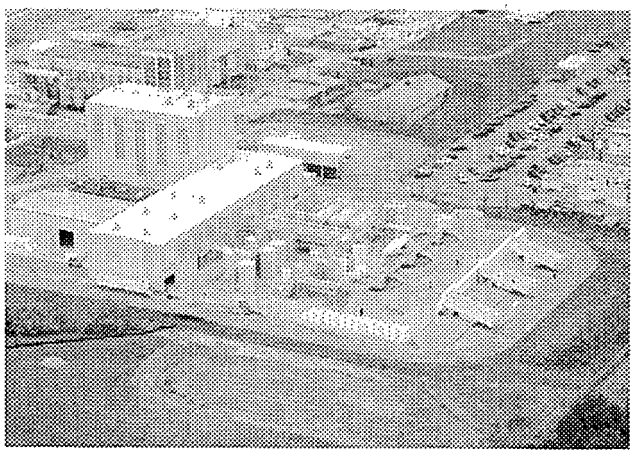
Extensive on-site rail improvements are currently being constructed to accommodate the railcars that will be used by the Waste Pits Remedial Action Project (WPRAP) for shipment of treated Operable Unit 1 waste to an off-site disposal facility. To date, the subcontractor has installed a majority of the 17,500 feet of rail needed for a railyard located north of the former FEMP production area, as well as the lines connecting this railyard to the waste processing area and to the CSXT branch line. The subcontractor has also installed a large number of the switches and turnouts necessary to accommodate railcar movement throughout the site. In addition, the subcontractor recently initiated upgrade work on the Paddys Run Trestle. All of the on-site rail improvements are scheduled for completion in December 1997.

On-site rail improvements in support of the Waste Pits Remedial Action Project are on schedule to be completed in December 1997 (6349-969).

Advanced Wastewater Treatment Facility Shuts Down For Two Weeks in August

The Advanced Wastewater Treatment (AWWT) Facility was shut down for two weeks, from Aug. 16 until Aug. 31. The Interim Advanced Wastewater Treatment Facility (IAWWT) and the South Plume Interim Treatment Facility (SPIT) continued to treat South Plume groundwater, and the AWWT treated stormwater during the shut down.

During this time, AWWT Expansion Project and AWWT Regeneration Project subcontractors made electrical and piping tie-ins that could not be made while the equipment is in operation. Fluor Daniel Fernald Maintenance personnel took this opportunity to perform preventive maintenance on the electrical substations and other tasks that require operations equipment to be shut down. AWWT Operations personnel cleaned and inspected the inside of the tanks and sumps during the shutdown.



The Advanced Wastewater Treatment Facility has shut down all wastewater treatment operations for two weeks from Aug. 16 through Aug. 31. The Interim Advanced Wastewater Treatment Facility and the South Plume Interim Treatment Facility continue to treat South Plume groundwater (6600-130).

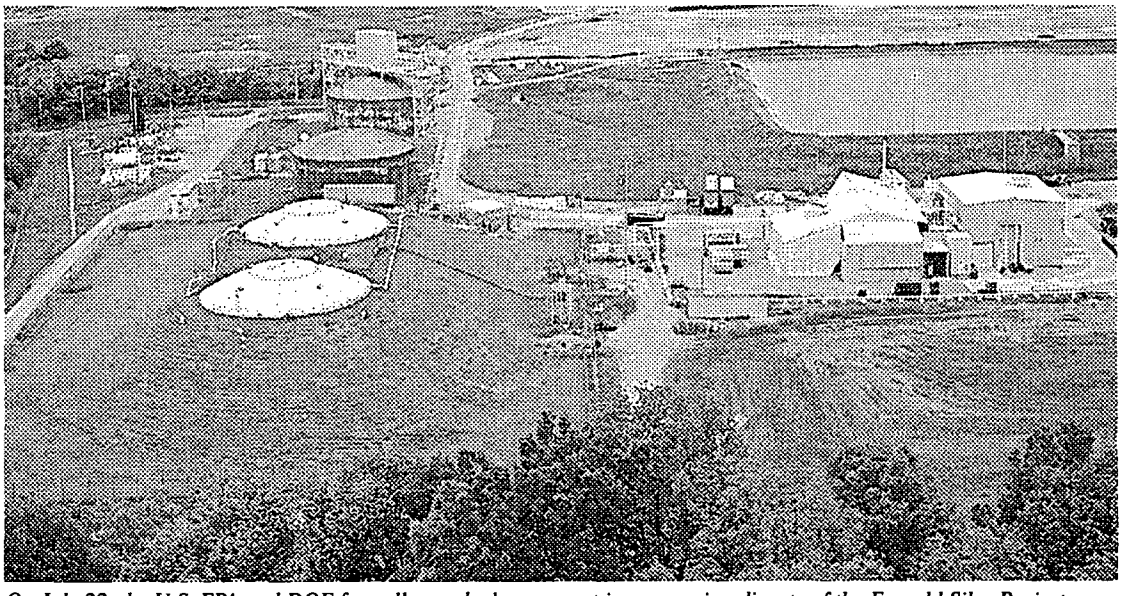
Fernald Silos Project Dispute Resolution Document Signed July 22, 1997

On July 22, the U.S. EPA and DOE formally reached agreement in an ongoing dispute of the Fernald Silos Project (Operable Unit 4). On July 14, 1997, DOE signed a settlement document and issued the document to U.S. EPA for signature. Throughout this process, the parties consulted and accepted input from the Ohio EPA and key stakeholders including the Fernald Citizens Advisory Board and members of the Fernald Residents for Environmental Safety and Health (FRESH). As part of the dispute resolution, DOE has agreed to an overall monetary penalty of $100,000 for the missed milestones.

Submittal Dates Modified in the Amended Consent Agreement

DOE and U.S. EPA also agreed to modify the Amended Consent Agreement to reflect submittal dates for the following additional Operable Unit 4 documents:

• Submittal of Draft Explanation of Significant Differences (ESD) for Silo 3 to U.S. EPA	Sept. 15, 1997
• Award of multi-technology proof of principle contract for Silos 1 and 2	Aug. 10, 1998
• Submittal of Draft Supplemental Feasibility Study/Proposed Plan to U.S. EPA	Feb. 1, 2000
• Submittal of Draft Record of Decision	Dec. 29, 2000



On July 22, the U.S. EPA and DOE formally reached agreement in an ongoing dispute of the Fernald Silos Project (6600-121).

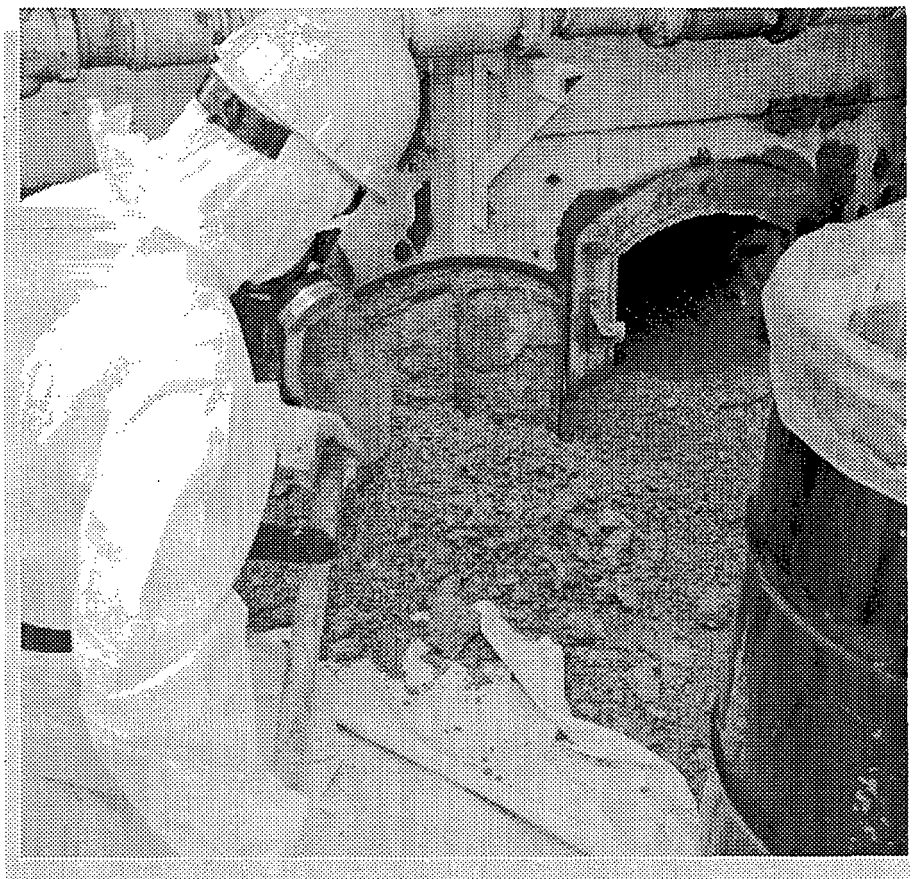
Last of Thorium Overpacking Containers Shipped to Nevada Test Site

As of July 28, 1997, all 971 thorium overpacking containers containing 5,577 drums of thorium compounds have been shipped to the Nevada Test Site. The overpacking of all 5,577 drums into 966 thorium overpacking containers was completed May 22. The cleanup of the facility produced an additional five thorium overpacking containers. This project, which had been scheduled for completion in April 1998, was completed nine months ahead of schedule.

Old Sewage Treatment Plant Being Remediated and Replaced

The existing FEMP Sewage Treatment Plant, originally constructed in 1951, frequently requires significant maintenance service and is at the end of its useful service life. The facility and its immediate surroundings are radiologically contaminated and must be remediated. The existing facility also lies in the OSDF construction area.

A new sewage treatment plant is needed to continue site sewage treatment service, to allow dismantlement of the existing facility and remediation of the area, and to enable OSDF construction. A new sewage treatment system will be created using existing equipment of the Biodenitrification Effluent Treatment System (installed in 1989 and no longer in service), relocated and reconfigured, along with some new and existing equipment, as a new site Sewage Treatment System. Expected to be operational by early 1998, the new sewage treatment system will be located just west and south of the AWWT Facility.



A Safe Shutdown hazardous waste worker shovels holdup material from a furnace in the Incinerator Building into a 55-gallon drum (6556-46).

Safe Shutdown of Plant 2/3 Progresses

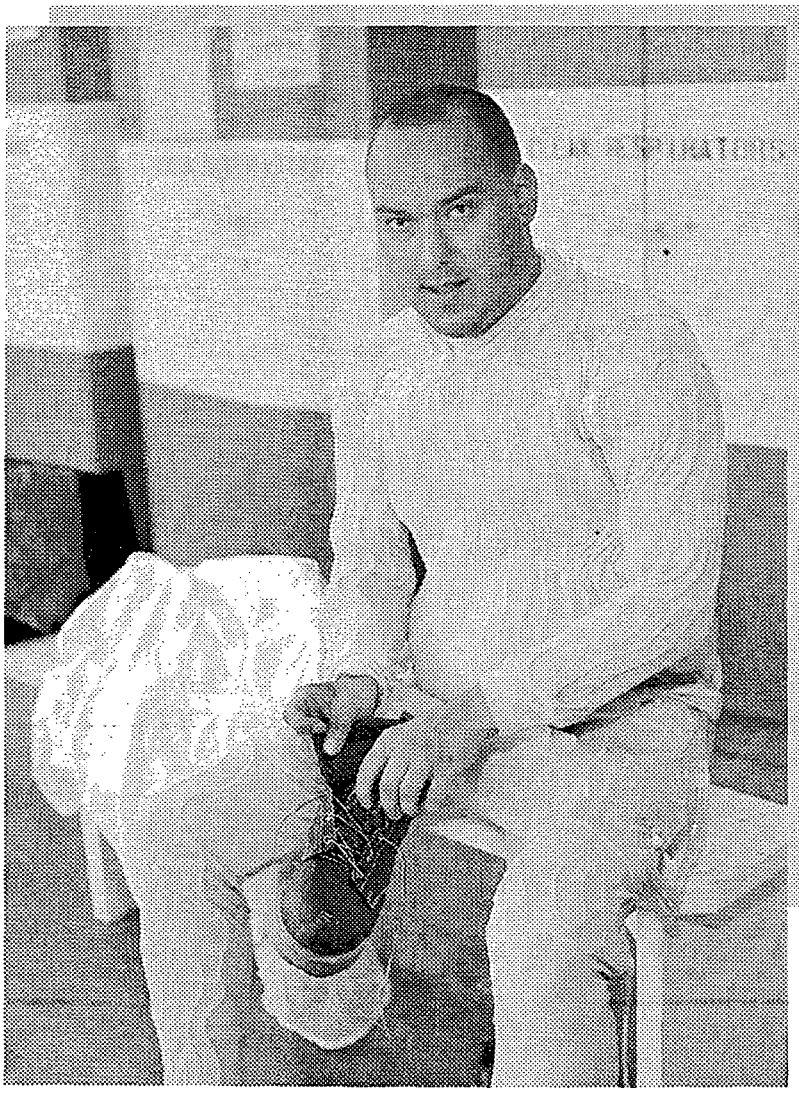
Safe Shutdown operations are on schedule in Plant 2/3, the former Ore Refinery Plant. Hazardous waste workers and craft personnel have removed approximately 27,500 pounds of holdup material and are disconnecting the buildings' utilities. "We've completed about 63 percent of the work in Plant 2/3 so far," said Monty Morris, Safe Shutdown program manager. "We expect to have everything done by March of next year.

"We've completed approximately 34 percent of our scope of work and expect Safe Shutdown at Fernald to be done in August 2001," Morris said. The two facilities awaiting Safe Shutdown are Plant 6, the former Metal Fabrication Plant, and Plant 8, the former Recovery Plant. Safe Shutdown personnel have completed operations in Plants 7, 4, 1, 9, 5 and the Pilot Plant.

DOE/Regulators Approve Material Disposition (Recycling) Methodology

After three public workshops and two public review periods, DOE-FEMP, U.S. EPA and Ohio EPA approved the *Decision Methodology for Fernald Material Disposition Alternatives*, a tool to help decision-makers evaluate and select -- from a pool of competing alternatives -- the proper disposition of radioactively contaminated materials (primarily structural steel from building demolition).

The methodology is consistent with the *Operable Unit 3 Record of Decision for Final Remedial Action*, which identifies placement of structural steel in the On-Site Disposal Facility as the final disposition approach, with opportunities for evaluating future competitive recycling or reuse alternatives. As new implementation plans for building demolition are developed, the FEMP will apply the methodology to determine the most appropriate and cost-effective disposition approach. Stakeholders will have an opportunity to review the draft implementation plans and provide input during the decision process. The methodology is a "living" document, and will be adapted as needed to reflect changes in stakeholder's preferences, new information, and breakthrough technologies. Copies of the methodology are available to the public in the Public Environmental Information Center (PEIC), located in the Delta Building, 10995 Hamilton-Cleves Highway, Harrison.



"Cool Suit" May Be Perfect Fit for D&D Workers

FEMP Decontamination and Dismantling (D&D) activities require various types and layers of personal protective equipment. Although personal protective equipment is designed to protect workers from contamination, it also significantly compromises the body's ability to cool itself, which can lead to serious heat stress situations.

The FEMP Technology Programs Department has reviewed and selected a "cool suit" for demonstration at Fernald. The Personal Ice Cooling System (PICS) is a self-contained, core body temperature control system. The PICS uses ice as a coolant and circulates cool water through tubing that is incorporated into a durable and comfortable, full-body garment (pants and shirt). Water is frozen in bottles worn inside and outside of anti-contamination clothing. The bottles are in sealed, insulated bags, and a circulating pump is attached to a support harness system. A rate-adjustable, battery-powered pump circulates chilled water through tubing in the suit. The pump allows workers to control temperatures. Initial demonstration results have shown a promising improvement in heat stress control.

A radiological control technician demonstrates the Personal Ice Cooling System (PICS), a self-contained, core body temperature control system. The PICS uses ice as a coolant an circulates cool water through tubing that is incorporated into durable and comfortable, full-body garment (6429-347).

DOE Issues Work Force Restructuring Plan

The DOE Ohio Field Office has issued a work force restructuring plan for its Mound and Fernald sites. No work force reductions are anticipated for Fluor Daniel Fernald in the foreseeable future. A detailed work force planning process has been completed for fiscal years 1998 and 1999. The results indicate, that at currently anticipated funding levels, staffing needs for the next two years at Fernald can be met through normal attrition.

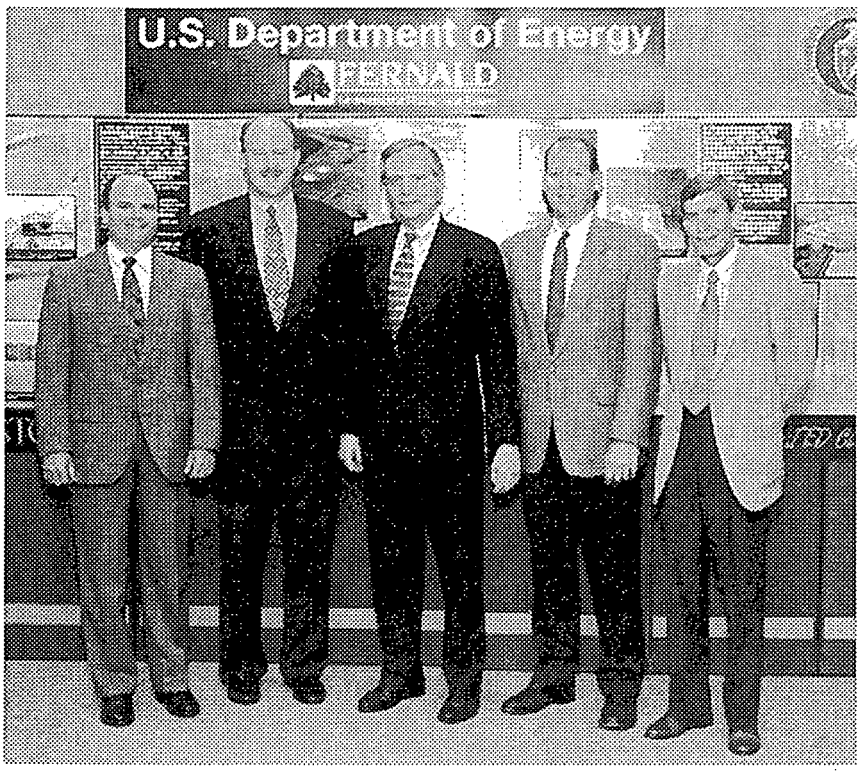
Fluor Daniel Fernald employees and all stakeholders had an opportunity to comment on the draft version of the work force restructuring plan earlier this year. The final plan was developed after considering those comments. The plan was issued to ensure consistency in work force restructuring efforts throughout the DOE complex and specifically addresses Ohio Field Office sites. By integrating the work force and focusing on projects, Fluor Daniel Fernald has worked diligently in recent years to use the knowledge and skills of current team members to complete work safely and efficiently. Fluor Daniel Fernald plans to continue using the talents of current team members to the maximum extent feasible. DOE-FEMP and Fluor Daniel Fernald are committed to providing developmental opportunities to team members through the Career Development Center and the tuition reimbursement program. This commitment to development will help the work force transition voluntarily from the FEMP to other jobs as work at Fernald nears completion.

Regulators Approve Integrated Environmental Monitoring Plan

DOE received conditional approval of the Integrated Environmental Monitoring Plan (IEMP) from U.S. EPA, on July 10, and Ohio EPA, on July 11, pending approval of the National Emissions of Hazardous Air Pollutants (NESHAP) monitoring-based program by the U.S. EPA's Air and Radiation Section. Representatives of the U.S. EPA Air and Radiation Section conducted a week-long assessment of the existing NESHAP program and the newly proposed monitoring location during the week of July 21. The assessment was favorable, and DOE anticipates a letter approving the NESHAP section of the IEMP in the near future.

Monitoring under the IEMP will be fully implemented by Jan. 1, 1998. The first IEMP annual report, which will replace the less-comprehensive annual Site Environmental Report (SER), will be available in June 1999. Monitoring data collected during calendar year 1997 will be published in the final SER during the summer of 1998.

DOE Environmental Management Assistant Secretary Alm Visits FEMP

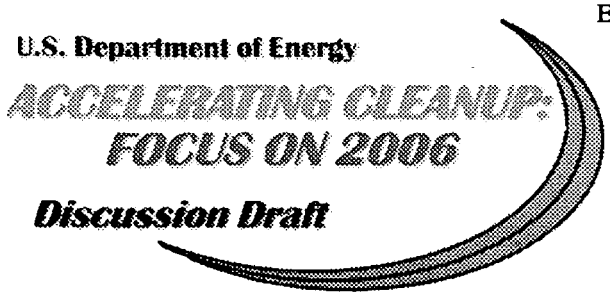


On Aug. 12, DOE Environmental Management Assistant Secretary Al Alm visited the FEMP to get a first-hand look at cleanup in progress. He has been touring numerous facilities undergoing environmental restoration within the DOE complex. Seeking feedback, Alm met with several key stakeholders including representatives of FRESH, the Fernald Citizens Advisory Board, Fernald Community Reuse Organization and Ohio EPA. Alm also met with DOE and Fluor Daniel Fernald leaders, Fernald's Safety First Team members, and Central Safety Committee members to discuss initiatives being implemented to improve work practices. Primary FEMP issues discussed with Alm included funding, work force restructuring, cleanup priorities and the accelerated cleanup plan.

"Assistant Secretary Alm's visit to the FEMP provided an opportunity to witness a wide range of cleanup priorities including safety, progress, and open communication with members of the public and our own team members," said Gary Stegner, DOE-FEMP Public Affairs director. "It was beneficial for everybody who had the opportunity to meet with him to better understand the mission and goals of the DOE Office of Environmental Management."

DOE Environmental Management Assistant Secretary Al Alm visited the FEMP on Aug. 12. From left, Glenn Griffiths, Shayne Farrell, Al Alm, Jack Craig and Bob Folker, pose for a picture with the FEMP "Road Show" display as the backdrop (6411-27).

Public Comment Period on Accelerated Cleanup Plan Ends Sept. 9



With the June 12 release of DOE's document *Accelerating Cleanup: Focus on 2006*, DOE Environmental Management Assistant Secretary Al Alm is encouraging stakeholders to comment on and participate in the development of the final plan.

The 90-day public comment period on the *Accelerating Cleanup: Focus on 2006* document ends Sept. 9. Stakeholders can submit comments to DOE-FEMP Public Affairs Director Gary Stegner, 513-648-3153. DOE will hold workshops help stakeholders understand and comment on the document, which is available at the PEIC and on DOE Environmental Management's Web site (*http://www.em.doe.gov/acc2006*).

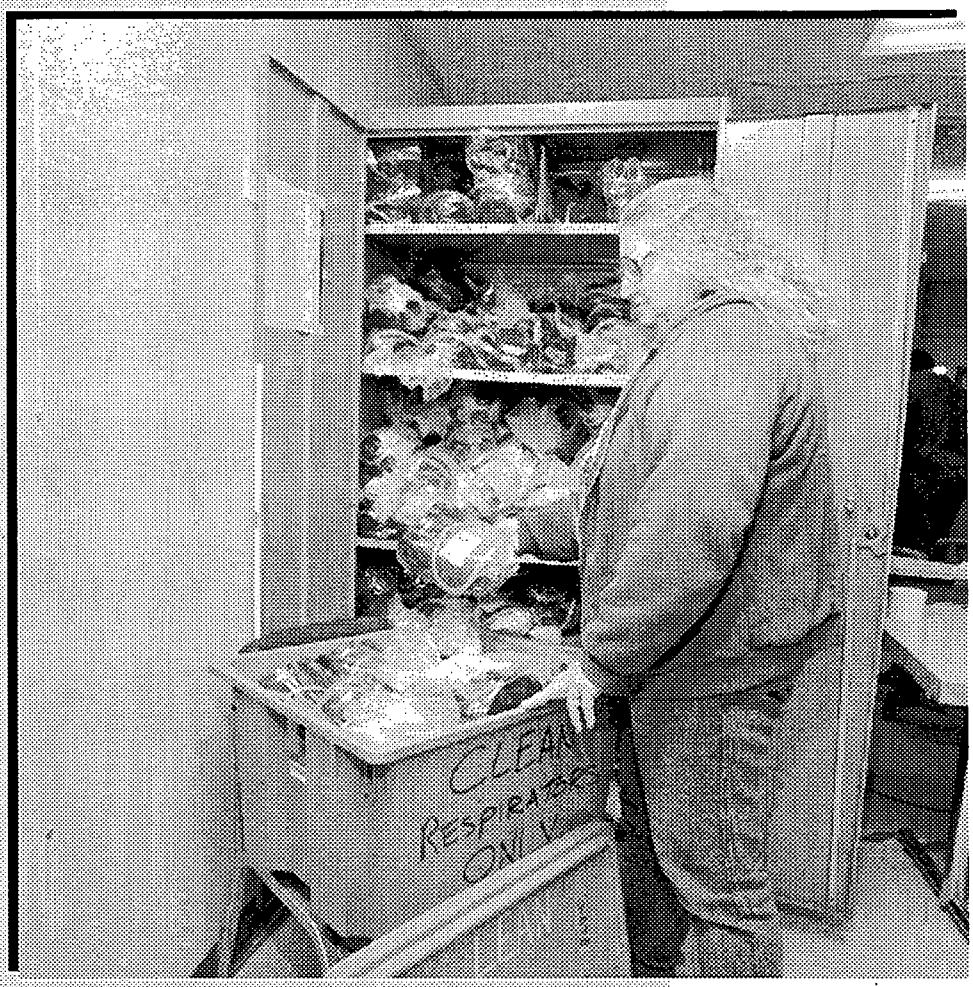
Small Talk Leads to Big Savings

At a DOE Respirator Administrators Conference, Fluor Daniel Fernald employee Roy Gass and Fluor Daniel Hanford employee Cliff Ledford were discussing the respiratory protection challenges facing each site. "Roy was telling me about the overabundance of respirators at Fernald, and I was telling him about the respirator shortage at Hanford," Ledford said. "What started as a casual conversation developed into a collaborative partnership."

Ledford and Gass maintained communication and developed a plan to transfer about 2,500 MSA Ultra Twin respirators from Fernald to Hanford. Their efforts will save the Hanford site, and ultimately taxpayers, approximately $444,000. "When I realized we had 14,000 respirators for less than 2,000 users, I immediately began looking for ways to reduce our inventory," Gass said.

During the last week in July, the respirators were transported from the FEMP to Hanford.

"Everyone benefits from bringing the respirator administrators together to discuss issues common at DOE sites," said Dave Kozlowski, DOE-FEMP Safety and Assessment director. "We're confident this is just the first of many success stories to come out of these conferences."



Hazardous waste worker Claire Marchant stocks a respirator cabinet in the Plant 2/3 changeout area (6513-10).

July 1997 Corporate Contributions

Civic $950

-- Three youth soccer teams: Warren County Blasts, Warren County Wild Angels, and Warren County Middletown Renegades.

-- INROADS: Donation to attend annual awards celebration dinner. INROADS' mission is to develop and place minority youth in business and industry and prepare them for corporate and community leadership.

Stephanie Dudley and Barbara Campbell, participants in Fernald's INROADS program, are shown here at the organization's annual recognition banquet with Joyce Leslie, Fluor Daniel Fernald's INROADS coordinator (6606-22).

"Archaeology: Can You Dig It?"

In partnership with the Hamilton County Park District, the FEMP has organized a group of educators to write a curriculum for fourth through seventh grade teachers to use in the classroom. The lesson plan topics will include process skills needed by archaeologists, information on the various native people who lived here from the pre-historic to the historic eras, and several issues surrounding cultural preservation. The material will be presented through engaging hands-on, minds-on activities that also satisfy the Ohio Science Model and proficiency testing. The full package will be ready for a teacher inservice in mid-fall 1997. The curriculum will also include an April 1998 field trip to Shawnee Lookout Park, so students can participate in an actual archaeological dig.

From left, Debbie Bonekamp, Barb Katenkamp, Jill Overton, Karen Cody, Penny Borgman and Sue Walpole have been preparing an archaeological skills curriculum for fourth through seventh grade teachers to use in the classroom (6635-1).

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New Information Available to Stakeholders at PEIC

The following information has recently been added to the Public Reading Room and post-record-of-decision (ROD) files at DOE's Public Environmental Information Center (PEIC), Delta Building, 10995 Hamilton-Cleves Highway, Harrison. For more information about PEIC resources and operating hours, please call 513-648-7480.

Draft Wetland Mitigation Assessment -- This document evaluates three alternatives for supporting on-property wetland mitigation and provides a recommendation for the most feasible alternative to address the commitment of 15 acres of mitigated wetlands.

On Site Disposal Facility Final Design Package and Support Plans -- This is the final submittal of the design package and supporting plans. This version addresses previous comments received by the U.S. EPA and Ohio EPA.

Geotechnical Sampling Report of Former Production Area -- The objective of this geotechnical sampling and testing plan is to obtain 10 additional subsurface geotechnical data points. The information provided by these points will be combined with existing site and geotechnical data in order to support the final remedial design of the FEMP's former plant area. The areas where depths of excavation will be significant are of primary interest.

Final Versions of the Remedial Action Work Plan for Aquifer Restoration and The Baseline Remedial Strategy Report for Aquifer Restoration -- This remedial action work plan for Aquifer Restoration provides the implementation strategy and enforceable schedule for completing the restoration of contaminated portions of the Great Miami Aquifer at the FEMP. This work plan is a sister document to the *Remedial Design Work Plan for Remedial Actions at Operable Unit 5*, which provides the general scope of work and deliverable schedule for the design of the aquifer restoration remedial action.

Amy Arcaro, a Public Environmental Information Center staff member, demonstrates one of the computer workstations that is available for stakeholders to use at the PEIC (6625-9).

Final Restoration Area Verification Plan -- This project-specific plan presents the results of data evaluation of non-uranium final remediation level exceedances detected outside of the uranium based restoration footprint, and outlines a sampling program for determining the vertical and lateral extent of the 20-micrograms-per-liter uranium plume in the area of monitoring well 3069 to support the remedial design of the aquifer remedy.

Fluor Daniel Fernald responses to U.S. DOE Comments on the Draft South Plume Performance Monitoring and Maintenance Plan for April 1997.

Handouts and Summaries from DOE Public Meetings

- June 24 On-Site Disposal Facility workshop;
- July 8 Recycling Methodology workshop;
- July 14 Public Involvement workshop;
- July 29 Silos Project workshop;
- July 8 Soils and Water Projects;
- July 12 community meeting.

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femp waste

Shipping Report

The volume of low-level radioactive waste shipped to the Nevada Test Site (NTS) for July 1997 was 64,494 [external cubic feet (cf)]. As of July 25, 1997, the FEMP has shipped 356,552 cf (external) of low-level waste to NTS for fiscal year (FY) 1997.

Low-level radioactive waste volume reduction includes approximately 4,439 containers of legacy low-level uranium residue and 4,582 containers of thorium oxalates/hydroxides identified in *FY 1996 Inventory Reduction Plan for Legacy Wastes at the FEMP.*

Efforts for fiscal year 1997 will be directed toward complete reduction of legacy soil, liquids, and asbestos inventories. In July 1997, NTS placed Waste Stream 6 (Residues) on full suspension until the FEMP adequately closes Corrective Action Requests, or until the FEMP presents profiles during the annual review scheduled for October 1997.

The volume of low-level radioactive waste materials per waste stream shipped to NTS in July 1997 follows:

Waste Stream	External Volume (cf)
Process Area Scrap	59,831
Thorium	0
Residues	0
Contaminated Trash	0
Construction	4,047
Stabilized Mixed Waste	*616*

The volume of low-level radioactive waste materials per waste stream shipped to NTS in FY 1997 (as of July 25, 1997) follows:

Waste Stream	External Volume (cf)
Process Area Scrap	139,054
Thorium	98,532
Residues	69,984
Contaminated Trash	13,242
Construction	27,059
Stabilized Mixed Waste	8,681

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